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2008

## Senior Capstone Project final research report : Health and Environmental Action Network

Raul Hernandez  
*California State University, Monterey Bay*

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### Recommended Citation

Hernandez, Raul, "Senior Capstone Project final research report : Health and Environmental Action Network" (2008). *Capstone Projects and Master's Theses*. 158.  
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Raul Hernandez  
5-23-08  
CHHS 400B  
Senior Capstone/ Field Seminar  
Jennifer Fellguth

Senior Capstone Project Final Research Report  
Health and Environmental Action Network

The Health and Environmental Action Network (HEAN) is a project that raises awareness of environmental health issues in Watsonville.

Abstract: The HEAN Program is meant to identify and raise awareness of environmental health issues in Latino communities. The project involves mobile air monitoring by local youth, as well as incorporating environmental health awareness into our outreach and education, with an educational goal towards local youth. The HEAN project plans to promote health awareness not only at a local level, but at a national level as well.

Salud Para La Gente, Inc., is a community health center located in the Pajaro Valley of Santa Cruz and Monterey County, in the mid-coastal area of California. This area is a rich agriculture community that employ's 40,000 farm-workers during the peak of the harvest season. They suffer from a plethora of unmet healthcare needs which includes asthma, failure to thrive, imparement prenatal services, skin diseases, and uncontrolled infections. Most of the farm-workers are uninsured and lack resources to pay for care.

#### Mission

Salud Para La Gente, is a non-profit organization comprised of dedicated individuals, that are committed to provide a coordinated network of high quality, comprehensive, and cost effective health care services that are responsive to the evolving needs of the Monterey Bay low-income communities.

Salud Para La Gente is a network of six community health centers. The organization provides medical, dental, mental health, pharmacy, immunization, food distribution, and outreach services, mostly to area farm-workers. Watsonville has had history of pesticide use in agriculture fields, which is why a problem was addressed.

The problem we are addressing is pollutants in the environment. Watsonville's economy is predominantly agricultural, where 72% of the area's population is Hispanic. For this heavily migrant population, most of whom are uninsured or underinsured Salud is usually the only clinical care option available. "Salud's clinics serve 19,000 patients, many of whom face serious health problems as a result of their work in the strawberry fields" (Velazquez, 1992). Exposure to pesticide use is a major problem. At the beginning of the growing season, the strawberry fields are covered in thick layers of pesticide. It gets to the point where some of these workers react horrendously and are unable to work.

While pesticide exposure is always risky, there have been situations in which crop-dusters inadvertently spray fields in which farm-workers are working. In addition, farm worker's employers often break self-imposed rules about when and how much to spray fields.

Salud Para la Gente determined that the abovementioned was a problem because Air pollution presents a significant threat to all communities. "Over 91% of Hispanics, 86% of African Americans, and 70% of non Hispanic whites live in urban settings, which are typically at higher risk for air pollution" (Environmental Protection Agency, 1998). Nearly

twenty six million Hispanics, or two thirds of Hispanics in the United States, live in areas that do not meet the federal air and water quality standards.

This is a problem because these areas are not monitored on pollution, the way they should be. Pollution in these communities is causing direct and indirect exposure to families in that area, which may result in adverse health effects.

My agency determined that this is also a problem because pollutants in these areas exist in a rate that is affecting healthcare quite a bit. Watsonville specifically has had a history of pesticide use in strawberry fields. Watsonville's economy is predominantly agricultural; its products include lettuces, artichokes, cut flowers, and above all strawberries. Most of these farm workers are Hispanic and/ or Mexican.

It has been reported that prolonged exposure to "pesticides is responsible for an estimated 313,000 illnesses and 1000 deaths annually among agricultural workers" (Velazquez, 1992). Many farm workers are being directly exposed. "Farm workers who mix, load, and apply pesticides and who are in contact with crops or commodities sprayed with pesticides have the greatest potential exposures" (Moses, 1993). In this case most of these local

farm workers do indeed have the greatest potential for exposure and in turn, health risks.

When farm workers go home they are indirectly exposing pollutants to their families. Farm workers go home after work with their clothes full of pesticides and pollutants because of their exposure in their work site. "Exposure to pesticides causes poisoning, skin diseases, miscarriages, and asthma, which is a huge concern. The Environmental Protection Agency (1998) reported that Hispanic children are 63% more likely to be hospitalized for asthma, than non Hispanic White children. Due to the latter, recently there have been significantly more health disparities around the Watsonville community. Thus, a project was developed in an attempt to address this issue.

There are four cities that have been chosen in four states, two rural, and two urban. The cities chosen are Brownsville, Texas; Detroit, Michigan; Brooklyn, New York, and Watsonville, California. These four areas are identified as high risk polluted communities. According to the National Alliance for Hispanic health (2007) 18.5% of Hispanics live in areas with highly polluted air. Compare with 6% of non Hispanic Whites, and 9.2% of non Hispanic Blacks.

The purpose of the HEAN Project is to identify and raise awareness of environmental health issues in Latino communities. The project involves mobile air monitoring by local youth as well as incorporating environmental health awareness into our outreach and education. I began this project by providing volunteer students with a power point presentation, giving them an overview of the HEAN project. The power point presentation included the description of the project, the problem being addressed and why Watsonville was chosen for this project. After the students learned about the project, we moved forward to conduct research in local high risk polluted areas to measure and collect data, in the Watsonville area. Once the target areas were identified, we determined the sites that needed to be measured.

Prior to beginning the measuring process, students were provided with training on the different equipment that would be utilized in the HEAN project. That is, "Volunteer students received training on mobile pollution sensors, GPS devices and video cameras" (National Alliance for Hispanic Health). After completing that process, these students were ready to begin measurements of three types of atmospheric pollution. These students utilized their GPS devices to

record their exact location, every time they went out to the field.

Students also recorded instances of environmental concerns or hazard on short videos, and posted them on an Environmental countdown video-sharing website. After receiving the data collection, the data will be analyzed and produce reports on "Google Earth", which maps out and details the specific environmental problems facing these communities. "HEAN will then work with local community based organizations to formulate strategies for dealing with these environmental hazards" (National Alliance for Hispanic Health).

The fact that the HEAN project is a three year project signifies that much more data needs to be collected in order to thoroughly analyze the data collected. After the latter is accomplished, trends of local hazardous pollutants can start to be found, and we can begin to search for solutions to the problem. As of now, the HEAN project is in year two, with year two ending on August 31<sup>st</sup>. By the beginning of year 3, data collected should begin to be analyzed.

Local awareness in the Watsonville area has increased since the beginning of the project. Media has greatly assisted in helping to spread awareness about the project,



through television news and newspapers. An increasing amount of youth volunteers from different schools continue joining the project. This helps facilitate the process as they also serve to spread awareness as we give them an overview of the project and why Watsonville is involved.

There were three major learning outcomes (MLO's) that this project addressed. Those three (MLO'S) were collaboration, leadership and personal and professional development. I demonstrated the ability to work in teams with different community members and local youth volunteers that were recruited for the HEAN project. Decision making was an important component of the learning process, as it played a significant role in completing tasks by certain date lines. Communication and interaction within the group was also crucial in order complete certain tasks by an allocated time. Collaboration with students and staff from the agency was sometimes difficult due to scheduling conflicts, but with the help of technology we were able to successfully follow through with scheduled tasks. I had to take an active leadership role to ensure the successful accomplishment of required tasks.

I developed an understanding of the importance of leadership. This is evidenced by my role in motivating participants in the HEAN project to ensure that we all

shared the same vision, and making sure we were all heading towards the same direction with the same goals. I was able to implement the project's objectives so that all HEAN participants would sustain the same vision. There were instances in which I was unable to answer some of the youth volunteer's questions. In these cases, I turned to the support of the agency to obtain a clear understanding of the situation. After obtaining clarification and guidance, I was able to forward the answer to the volunteers. Involving key stakeholders allowed me to do so. This was also an opportunity for me to develop my professional skills.

I noticed how from the beginning of the project to this point, my knowledge, skills and attitude necessary for growth have developed. When stressful situations were presented I did not panic. I proceeded with doing what I had to do, and I was able to carry on as leader in the project. In addition, I noticed that I began monitoring and correcting my own behavior. In the beginning of the project I tended to carryout certain tasks without being mindful of whether I did them in the correct manner. Towards the end of my experience with this project I noticed myself correcting my behavior and being more mindful of my decisions, which inevitably made my job a lot easier. When

I corrected my own mistakes it made me feel like my professional development was increasing.

**Describe how the project reflected the CSUMB Vision statement.**

There were a few quotes from the CSUMB vision statement that really made me reflect on my project. The first reads as follows: "California State University, Monterey Bay is envisioned as a comprehensive state university which values service through high quality education. I was able to value the services I provided through out my entire experience. The fact that I had high quality education, allowed me to provide and deliver services to my community with an educational goal towards youth on environmental health.

The second quote that reflected on my project was as follows. "The campus will be distinctive in serving the diverse people of California, especially the working class and historically undereducated and low-income populations. The fact that I was serving my Watsonville community which is historically known for being a low-income based community allowed me to put more efforts into my services delivered. My community is also Latino based, being an

advocate, and delivering outreach on environmental health really made me feel as if though I was making a difference.

## **Conclusion**

Through this project I was able to learn a lot. The HEAN project was an international project, and because of that it got a lot of media attention across the nation. Media attention spread fast through Watsonville and local agencies, and this made a lot of community advocates open their eyes. Many different agencies in Watsonville started to pay attention to problems concerning Watsonville and community health. This made it a lot easier for the HEAN project to collaborate with other local health agencies. The more the HEAN project progressed made us realize that there were more local environmental hazards, and polluted areas than expected. We identified local hazardous areas, and we were able to make them future sites to be measured for data.

Having discussions with students I found that not many students were aware of environmental pollution in Watsonville. A lot of these students were actually surprised to hear that some of the places where they lived were places identified as high risk, this made a lot of

students open their eyes, and made them more interested towards the project.

Having local youth spread local awareness in the community on environmental health is crucial for the community and the agency. Having youth involved in such an important project allows the community to learn new aspects of community health through youth outreach.

As long as the HEAN project collaborates with local youth and continues promoting health awareness around Watsonville I think that this project should be successful for the future of our community's wellness. Having Local high school students continue collecting data around the community is crucial for the projects success. With data collected by student volunteers, the HEAN project plans to spread awareness around our community with an educational focus towards youth in the community. Once data collected by student volunteers is analyzed, The HEAN project plans to promote an awareness campaign based on our findings around the community.

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